

doubtful quality. The spread as well as the origin of typhoid fever has been time and again traced to the use of water from wells containing typhoid infection. But not until recent years has the doctrine of the propagation of malarial disease by means of drinking water met with that general acceptance in the profession now conceded by the most experienced physicians of malarious localities. Whether the water of wells of these miasmatic places absorbs the poison from the air or whether it becomes impregnated with malaria more directly from the soil, or from both sources, is not important in a practical view. But the theory of the water absorption of malaria as well as of typhoid poison, seems to rest upon as solid a basis as that which supports the doctrine of malarial absorption by the lungs from the breathing of malarial atmosphere. I have known families, living in malarious localities but drinking water the year round that was obtained from wells located at a distance where malaria was unknown, to escape malarial fevers so long as they drank the water. But in precisely the same locality, and living side by side with those exempted families, I have known other families, drinking the water upon their own premises, to be attacked season after season with intermittent and remittent fevers. It is of record that crews of ships, embarking from places and relying only upon marsh water to drink after leaving, have been prostrated with these fevers in face of the fact that they had not been exposed to any malarial infection from the atmosphere; while other crews of ships, leaving the same places at the same time, but supplied with water from sources free from malaria, escaped these fevers entirely.

And now I hasten on to the more specific purpose of my appointment—to report upon the drinking water of the eastern counties of the State, its sources, impurities, modes of purification, etc. To say nothing of the supply of such of our cities as have aqueducts, there are three sources of water-supply to our eastern counties, viz: wells, springs and cisterns. The water of wells is by far most generally used. The water of springs is extensively used, especially in the more hilly regions. But cisterns, under the new departure of sanitary improvement inaugurated by our State Board, are numerous springing up in a large number of the counties, to the evident great benefit of the public health. The truth compels us to state, with regret and sorrow, that a majority of the wells of the east are located in unhealthy spots and surroundings. They are exposed to soil contaminations and impurities that enter into them and pollute the water. Very many of them, instead of being located upon the higher spots of hills and ridges to be found upon most premises even in our eastern plains, and thus more exempt from surface impurities, are so situated and so shallow that they are easy receptacles of surface sewage and sewage of accumulations of